## ENVIRONMENTAL ASSESSMENT

# Transfer of Westslope Cutthroat Trout from Jumping Creek and North Fork Deep Creek to Tyrell Creek (Smith River Drainage)

# I. Description of proposed action

## A. Description of water body and action.

# **Receiving Waters:**

Name: Tyrell Creek, Pole Creek and Hound Creek Reservoir Location: T15N, R1W sec 23,26,35,34 and T14N, R1W sec 9, 16

County: Cascade County

#### **Donating Waters:**

Name: North Fork Deep Creek Location: T15N, R5E sec19 County: Meagher County

Name: Jumping Creek Location: T12N, R8E sec8 County: Meagher County

Montana Fish, Wildlife & Parks (FWP) propose transferring non-hybridized juvenile and adult westslope cutthroat trout (WCT: *Oncorhynchus clarkii lewisi*) to Tyrell Creek (including Hound Creek Reservoir and Pole Creek) in the Smith River Drainage. FWP also proposes to take eggs from the Jumping Creek fish to be transferred, eye-up those eggs at a facility, and return them to the Tyrell Creek drainage for incubation and hatching from remote site incubators in order to increase and supplement natural reproduction. The water that WCT will be introduced into is located on Sieben Livestock Company property. Fish would be transferred from Jumping Creek and North Fork Deep Creek, both Smith River Drainage populations. Transfers will be made with the use of helicopters or state vehicles (Figures 1 and 2).

Sieben Livestock Company has provided reasonable public access to fish Hound Creek Reservoir and Tyrell Creek since the spring of 1989. Prior to 1988, non-game fish (suckers) were competing with planted game fish (rainbow trout and brook trout) resulting in poor growth and survival in the reservoir. In August of 1988, FWP treated Hound Creek Reservoir with the piscicide rotenone. Limited treatment of Tyrell Creek upstream of the reservoir resulted in an incomplete removal of non-game fish. Subsequently, non-game fishes once again dominated the reservoir fishery. After 1989, the reservoir was planted each year with approximately 3,000 rainbow trout. In 2000, low water levels in Hound Creek Reservoir, a willing landowner, and continuing problems with non-

native fish species provided an opportunity and impetus to restore native fish to the drainage. In the fall of 2000, Hound Creek Reservoir, Tyrell Creek, and Pole Creek were treated with rotenone to remove non-native fish species. Electrofishing and netting efforts from 2000 to 2004 succeeded in eliminating the last few non-native brook trout which had survived the piscicide treatment. Electrofishing of lower Tyrell and Pole creeks in 2005, 2006, and 2007 yielded no non-native fishes. Sculpin have been found in both Tyrell and Pole Creeks and grayling stocked since 2000 have been thriving in Hound Creek Reservoir. Grayling have failed to reproduce naturally and will likely be inferior competitors to WCT in this system. Hound Creek Reservoir is very productive and Tyrell Creek has excellent fish habitat most of its length. Lower reaches of Tyrell Creek have low gradient meandering channels with deep pools and areas of large beaver dams. Habitat features, particularly pool depth and width, indicate that this stream is a good candidate for translocation (Young and Guenther-Gloss 2004). This system (5 miles of habitable stream and a 24 acre reservoir) will undoubtedly support the 2,500 minimum WCT population recommended by Hilderbrand and Kershner (2000) for long term persistence and it drains significantly more than the 5.6 square mile area recommended as a coarse filter for translocations by Harig and Fausch (2002). The habitat in Tyrell Creek and Hound Creek Reservoir should support a robust and self-sustaining WCT population for > 100 years.

In 2005, population estimates of a small remnant population of WCT in Jumping Creek, a Smith River Drainage tributary, indicated it had been reduced to near extinction because of competition with non-native eastern brook trout. Efforts over the last three years to suppress brook trout with electrofishing equipment to try to buoy the WCT population have failed. Tyrell Creek and Hound Creek Reservoir provide ideal habitat and an opportunity to save the last remaining Jumping Creek fish from extinction. A permanent falls barrier is currently being constructed in Jumping Creek to protect them from continued upstream colonization by non-native brook trout (project should be completed by early 2008). We propose relocating WCT from Jumping Creek to Tyrell Creek, treating Jumping Creek with piscicides (separate EA), then transferring WCT back to Jumping Creek from Tyrell Creek in 2010 or 2011. The transfers back to Jumping Creek would be accomplished using eyed eggs placed in remote site incubators.

The total number of WCT obtained from Jumping Creek may be sufficient to prevent a genetic founder effect. However, the small size of the Jumping Creek WCT population and low levels of genetic deformities in Jumping Creek fish support transferring this population with WCT from another stream in the Smith River Drainage. Mixing two populations rather than three, is a compromise aimed at minimizing outbreeding effects such as loss of adaptations to the fishes native stream (Gilk et al. 2004) while also reducing the negative impacts of inbreeding (Wang et al. 2002). The final proportion of stocked individuals from each donor stream may not be equal. Moreover, survival and reproductive rates of donor fish may differ because of variability in the environment during and after planting and potential genetic adaptations to the new environment. The total number of WCT captured in Jumping Creek for relocation will likely be between 75 and 125 fish. An equal or similar number of WCT will be transferred from N. Fk. Deep Creek. Population surveys will be completed at N. Fk. Deep Creek prior to transfers to determine the maximum number of fish that can be moved. No more than 10% of the estimated population >= 6 inches and no more than 20% of the populations <6 inches will be moved.

#### **B.** Need for Action:

The westslope cutthroat trout is ranked as imperiled because of rarity and vulnerability to extinction throughout its range by the Natural Heritage Network and the State of Montana. Genetically pure WCT occupy about 8% of their historical range in the western United States (Shepard et al. 2003) and less than 4% of their historical range in northcentral Montana within the Missouri River Drainage (Moser et al. 2006). The Smith River Drainage in Montana currently supports four populations of non-hybridized WCT in a total of less than five miles of stream (less than 1% of historical habitat). Major threats to WCT include: competition and hybridization with non-native rainbow trout (Leary et al. 1995; Hitt et al. 2003), competition with brook trout (Dunham et al. 2002; Peterson et al 2004), and isolation of remaining non-hybridized populations above barriers in short headwater sections of stream. These small isolated populations are at risk of extinction from catastrophic events (e.g. fire, drought) and may eventually suffer negative consequences of inbreeding (Wang et al. 2002). Translocations and transfers have been commonly used to augment established populations, re-establish historic populations, and create refuge populations (Stockwell and Leberg 2002). Moreover, several past live fish transfers have successfully established WCT cutthroat populations in northcentral Montana (Tews et al. 2000, Moser 2006). In the event of a catastrophic loss of the N. Fk. Deep Creek or the restored Jumping Creek populations, Tyrell Creek WCT could be used to re-found these populations, or vice-versa. Though populations will not be identical because of adaptations to the new environment in Tyrell Creek, replication should preserve some of the rare allelic diversity that is common in individual populations of WCT (Allendorf and Leary 1988).

# II. Impacts of the proposed action

Please review the attached checklist on pages 9 to 13. The impacts of this action are included in the Environmental Assessment checklist. The following text addresses the impacts.

#### A. Impacts to the Physical Environment

## Fish and Wildlife – Section 5c, d, i, of Checklist

The proposed project would involve transfer of non-hybridized WCT from Jumping and N. Fk. Deep creeks (Smith River Drainage) to Tyrell Creek. Also, we propose to take eggs from fish to be transferred in Jumping Creek and incubate eyed eggs in remote site stream incubators placed in Tyrell Creek. Reproducing fish would likely rapidly colonize Hound Creek Reservoir and Pole Creek within 5 years of the initial transfers. The Tyrell Creek/Hound Creek system undoubtedly historically held native WCT and is ideal habitat for WCT. The FWP wild fish transfer policy will be followed and WCT will not be transferred until disease testing requirements of the FWP Fish Health Committee have been met.

**Disease testing:** This EA will be submitted to the Fish Health Committee in March of 2008. Additional disease samples if required by the Fish Health Committee will be collected from donor and recipient streams in early spring of 2008. Approved transfers will commence pending negative results of required disease testing. In general, fish for these types of transfers are collected from above fish barriers in remote headwater streams. Because of these barriers and the distance from sources it rare for these

populations to have communicable fish diseases. Lower Hound Creek near the Smith River has tested positive for *M. cerebralis*, the parasite that causes Whirling Disease (Table 1). These samples were collected from waters greater than 20 miles from Tyrell Creek. In addition, Hound Creek Reservoir is a barrier to upstream movement of fish. Hound Creek Reservoir and Tyrell Creek have tested negative for *Myxobolus cerebralis*. Middle Creek Reservoir (two drainages to the south) tested positive for Proliferative Kidney Disease and negative for Whirling Disease These results may preclude a future transfer of adults to other waters, but should not preclude transfer of gametes (eggs and milt) if no vertically transmitted pathogens are present (i.e. Bacterial Kidney Disease).

Table 1. Fish disease history – Hound Creek Drainage, N. Fk. Deep Creek, and Jumping Creek.

Location	Date	Species	# Fish	Results
		Brown Trout	60	Positive for <i>M. cerebralis</i>
Hound Creek-lower	9/9/1996			Negative for Aeromonas salmonicida,
Hound Creek-lower	9/9/1990			Yersinia ruckeri, & Renibacterium
				salmoninarum
		RBT –live cage	50	Positive for <i>M.cerebralis</i>
Tyrell Creek	10/23/1998	Brook Trout	60	Negative for M. cerebralis
Hound Creek Reservoir	10/23/1997	RBT (stocked)	60	Negative for M. cerebralis
Middle Creek Reservoir	Various	Cutthroat		Proliferative Kidney Disease
	10/22/1997	Cutthroat	60	Negative for <i>M. cerebralis</i>
	9/18/01	Cutthroat	10	Negative for M. cerebralis
N. Fk. Deep Creek	7/19/2000	Cutthroat	30	Negative for all pathogens
Jumping Creek	10/23/07	Brook Trout	60	Results Pending

Genetic Analyses: Fin clips were collected from Jumping Creek for Paired Interspersed Nuclear DNA Elements analysis in 2001 (7 fin clips), in 2004 (25 fin clips), and in 2005 (25 fin clips). PINE fragments of only westslope cutthroat trout were detected in all fish sampled (Leary 2002, 2004, 2006). There is no obvious barrier to upstream movement of rainbow trout and brook trout in Jumping Creek. However, exhaustive sampling (during suppression) of fish populations throughout Jumping Creek has never revealed the presence of rainbow trout. These remaining WCT are undoubtedly non-hybridized. Fish were collected from N. Fk. Deep Creek for allozyme analysis in 1980 (30 fish), in 1985 (31 fish), and in 2000 (60 fish). Analysis of these samples indicated that N. Fk. Deep Creek fish are non-hybridized. N. Fk. Deep Creek WCT has been extensively sampled for hybridization. These non-hybridized fish are separated from downstream rainbow trout by perennially dry channels and several partial falls barriers.

**Aquatic Invertebrates and Amphibians:** Invertebrate and amphibian communities in Hound Creek Reservoir, Tyrell Creek and Pole Creek developed in the presence of fish. Impacts on invertebrate and amphibian species from introduced non-hybidized WCT will be similar to those recently experienced (prior to piscicide treatment) in this watershed.

#### **B.** Impacts to the Human Environment

## Land Use – Section 7a of Checklist

The proposed project would have no impact on productivity or profitability of the area. The landowner (Sieben Livestock Company) has signed on to the Candidate Conservation Agreement with Assurances (CCAA: USFWS 2004) prior to the transfer and establishment of the WCT population. The CCAA is an agreement between FWP and the US Fish and Wildlife Service with willing landowners as signatories. The agreement recognizes and addresses the fact that successful WCT restoration hinges on the re-establishment of WCT in historically occupied waters that flow through private lands. The CCAA releases landowners from any potential ESA regulatory restrictions should the WCT ever become listed in the future.

## Aesthetics/Recreation – Section 11c of Checklist

Hound Creek Reservoir currently supports a small stocked population of arctic grayling. This population is not naturally reproducing and has shown to be of little recreational value. The establishment of a robust adfluvial population of WCT in Hound Creek Reservoir and its tributaries should create an excellent opportunity to fish for large native fish. These waterways are on private land, but the landowner has provided reasonable public access in the past.

#### III. Discussion of Reasonable Alternatives

#### 1) No Action

Do not transfer any fish into Tyrell Creek and Hound Creek Reservoir and maintain a fishless aquatic system. If the no action alternative was adopted, Tyrell Creek and Hound Creek Reservoir will not have a native WCT fishery or any fishery at all.

#### 2) Proposed Action:

Westslope cutthroat trout would be transferred from Jumping Creek and N. Fk. Deep Creek to Tyrell Creek (including Hound Creek Reservoir and Pole Creeks. The total miles of stream inhabited by genetically unaltered WCT in the Smith River Drainage will increase from 5 to 9 miles, an 80% increase. Under this alternative, the unique genetic legacy of the donor WCT populations would be substantially more secure than at the present time. Jumping Creek WCT will be saved from imminent extinction and N. Fk. Deep Creek will be replicated. Should N. Fork Deep Creek be lost due to catastrophic future events (e.g. wildfire, drought, disease) it could be re-founded with Tyrell Creek fish. FWP has agreed to take actions to benefit WCT (Conservation Agreement: FWP 2007) and this project would provide a substantial contribution to WCT conservation in Montana. Fishing for WCT in most streams in Montana is catch and

release only. If the WCT population reaches harvestable levels in the Hound Creek Reservoir/Tyrell system limited harvest could be pursued.

## 3) Re-establish a Non-native Fishery

In the future, Tyrell Creek and Hound Creek Reservoir could be stocked with non-native fishes (i.e. rainbow trout) and harvest may be allowed.

#### IV. Environmental Assessment Conclusion Section

1) Is an EIS required? This environmental review demonstrates that the impacts of this proposed project are not significant. The proposed action would provide substantial benefits to WCT and reduce the potential loss of genetic material from two populations in the Smith River drainage with minimal impact on the physical, biological, or the human environment, and thus would not require the detailed environmental review of an Environmental Impact Statement.

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- USFWS (U.S. Fish and Wildlife Service). 2004. Umbrella candidate conservation agreement with assurances between Montana Department of Fish Wildlife & Parks and U.S. Fish and Wildlife Service for westslope cutthroat trout introductions/reintroductions in Montana, Amended 16 August 2007.
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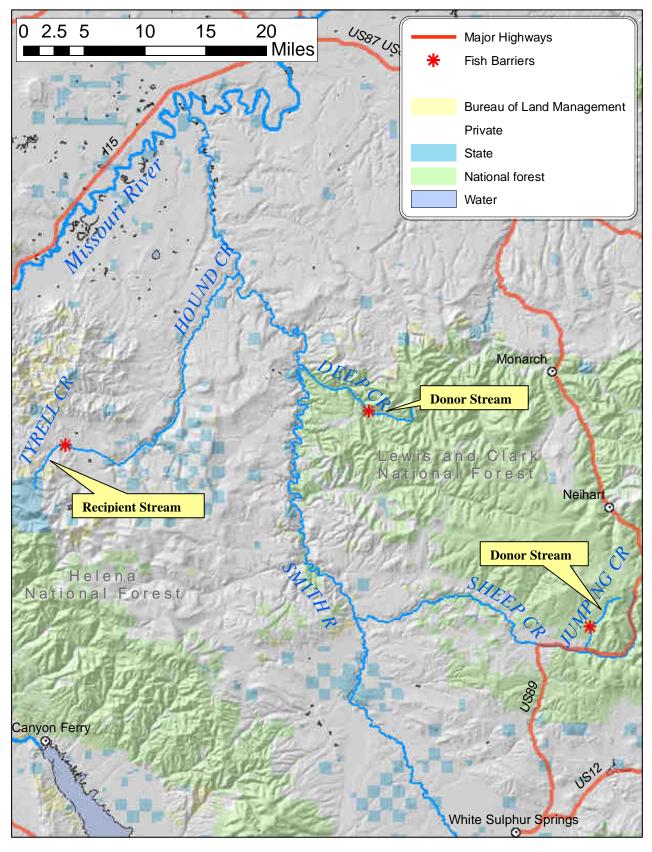


Figure 1. Area map showing Tyrell Creek, Jumping Creek, and N. Fk. Deep Creek.

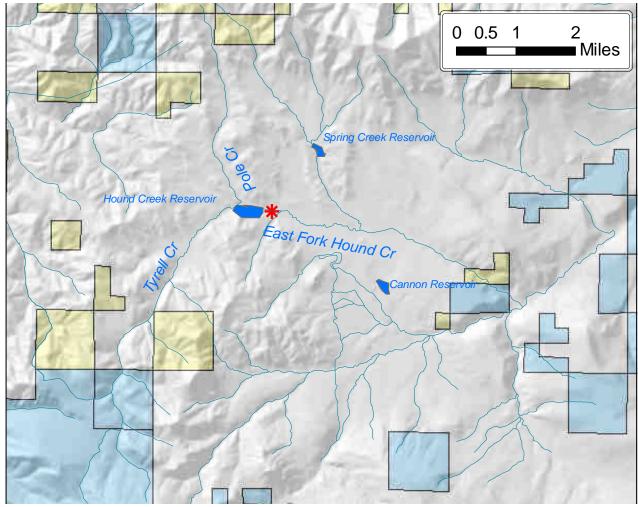


Figure 2. Detail of Hound Creek Reservoir, Tyrell Creek, and Pole Creek. Red asterisk indicates that Hound Reservoir is a fish barrier.

# Montana Department of Fish, Wildlife and Parks

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## **Environmental Assessment Checklist**

**Project:** Transfer of live fish from Jumping Creek and N. Fk. Deep Creek to Tyrell Creek (Smith

<u>River Drainage)</u> **Division:** <u>Fisheries Division</u>

**Description of Project:** Montana Fish, Wildlife & Parks propose transferring non-hybridized juvenile and adult westslope cutthroat trout (WCT: *Oncorhynchus clarkii lewisi*) to Tyrell Creek (including Hound Creek Reservoir and Pole Creek) in the Smith River Drainage. The water that WCT will be introduced into is located on Sieben Livestock Company property. Fish would be transferred from Jumping Creek and N. Fk. Deep Creek, both Smith River Drainage populations. Transfers will be made with the use of helicopters or state vehicles.

### A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u>	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be	Comment
Will the proposed action result in:	Ginanowii			Oigimiodin	Mitigated	muox
a. Soil instability or changes in geologic		Х				
substructure?						
<ul> <li>b. Disruption, displacement, erosion,</li> </ul>		Χ				
compaction, moisture loss, or over-covering						
of soil which would reduce productivity or						
fertility?						
c. Destruction, covering or modification of any		Χ				
unique geologic or physical features?						
d. Changes in siltation, deposition or erosion		Χ				
patterns that may modify the channel of a						
river or stream or the bed or shore of a lake?						
e. Exposure of people or property to		Χ				
earthquakes, landslides, ground failure, or						
other natural hazard?						
2. WATER	IMPACT	None	Minor	Potentially	Can	Comment
	Unknown			Significant	Impact Be	Index
Will the proposed action result in:	Unknown			Significant	Mitigated	index
a. Discharge into surface water or any	Unknown	X		Significant	•	index
	Unknown	Х		Significant	•	index
a. Discharge into surface water or any	Unknown	X		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including	Unknown			Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?      b. Changes in drainage patterns or the rate	Unknown	X		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?	Unknown			Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?  c. Alteration of the course or magnitude of	Unknown			Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?	Unknown	Х		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?  c. Alteration of the course or magnitude of floodwater or other flows?  d. Changes in the amount of surface water in	Unknown	Х		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?  c. Alteration of the course or magnitude of floodwater or other flows?	Unknown	X		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?  c. Alteration of the course or magnitude of floodwater or other flows?  d. Changes in the amount of surface water in	Unknown	X X		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?  c. Alteration of the course or magnitude of floodwater or other flows?  d. Changes in the amount of surface water in any water body or creation of a new water body?  e. Exposure of people or property to water	Unknown	X		Significant	•	index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?  b. Changes in drainage patterns or the rate and amount of surface runoff?  c. Alteration of the course or magnitude of floodwater or other flows?  d. Changes in the amount of surface water in any water body or creation of a new water body?	Unknown	X X		Significant	•	index

g. Changes in the quantity of groundwater?		Χ				
h. Increase in risk of contamination of surface		Χ				
or groundwater?						
i. Effects on any existing water right or		Χ				
reservation?						
i. Effects on other water users as a result of		Х				
any alteration in surface or groundwater		, ,				
quality?						
k. Effects on other users as a result of any		Х				
alteration in surface or groundwater quantity?		^				
I. Will the project affect a designated		Х				
, ,		Λ				
floodplain?						
m. Will the project result in any discharge that		Х				
will affect federal or state water quality						
regulations? (Also see 2a)						_
3. AIR	IMPACT	None	Minor	Potentially	Can	Comment
	Unknown			Significant	Impact Be	Index
Will the proposed action result in:					Mitigated	
<ul> <li>Emission of air pollutants or deterioration of</li> </ul>		Χ				
ambient air quality? (also see 13 (c))						
b. Creation of objectionable odors?		Χ				
c. Alteration of air movement, moisture, or		Χ				
temperature patterns or any change in						
climate, either locally or regionally?						
d. Adverse effects on vegetation, including		Χ				
crops, due to increased emissions of		^				
pollutants?						
e. Will the project result in any discharge,		Χ				
which will conflict with federal or state air		^				
quality regulations?						
4. VEGETATION	IMPACT	None	Minor	Potentially	Can	Comment
4. VEGETATION	Unknown	None	WIIIIOI	Significant	Impact Be	Index
Will the proposed action result in:	Olikilowii			Significant	Mitigated	IIIdex
a. Changes in the diversity, productivity or		Χ			Willigated	
		^				
abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?						
ishrubs drass crops and aduatic blants)?						
b. Alteration of a plant community?		Х				
b. Alteration of a plant community? c. Adverse effects on any unique, rare,		X				
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species?		Х				
b. Alteration of a plant community?     c. Adverse effects on any unique, rare, threatened, or endangered species?     d. Reduction in acreage or productivity of any						
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species?		Х				
b. Alteration of a plant community?     c. Adverse effects on any unique, rare, threatened, or endangered species?     d. Reduction in acreage or productivity of any		Х				
<ul><li>b. Alteration of a plant community?</li><li>c. Adverse effects on any unique, rare, threatened, or endangered species?</li><li>d. Reduction in acreage or productivity of any agricultural land?</li></ul>		X				
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds?		X				
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime		X X X				
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?	IMPACT	X X X	Minor	Potentially	Can	Comment
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime	IMPACT Unknown	X X X	Minor	Potentially Significant	Can Impact Be	Comment
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE	IMPACT Unknown	X X X	Minor	Potentially Significant	Impact Be	Comment Index
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE  Will the proposed action result in:		X X X None	Minor			
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE  Will the proposed action result in: a. Deterioration of critical fish or wildlife		X X X	Minor		Impact Be	
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE  Will the proposed action result in: a. Deterioration of critical fish or wildlife habitat?		X X X None	Minor		Impact Be	Index
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE  Will the proposed action result in: a. Deterioration of critical fish or wildlife habitat? b. Changes in the diversity or abundance of		X X X None	Minor		Impact Be	
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE  Will the proposed action result in: a. Deterioration of critical fish or wildlife habitat? b. Changes in the diversity or abundance of game animals or bird species?		X X X None			Impact Be	p. 3-4
b. Alteration of a plant community? c. Adverse effects on any unique, rare, threatened, or endangered species? d. Reduction in acreage or productivity of any agricultural land? e. Establishment or spread of noxious weeds? f. Will the project affect wetlands, or prime and unique farmland?  5. FISH/WILDLIFE  Will the proposed action result in: a. Deterioration of critical fish or wildlife habitat? b. Changes in the diversity or abundance of		X X X None	Minor		Impact Be	Index

d. Introduction of new species into an area?			X Beneficial	p. 2-4 Need for Action Section
e. Creation of a barrier to the migration or movement of animals?	Х			
f. Adverse effects on any unique, rare, threatened, or endangered species?	Х			
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?	X			
h. Will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)	Х			
i. Will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		Х		p. 3-4

# **HUMAN ENVIRONMENT**

6. NOISE/ELECTRICAL EFFECTS	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be	Comment Index
Will the proposed action result in:	Olikilowii			Oiginiicant	Mitigated	IIIGEX
a. Increases in existing noise levels?		Χ				
b. Exposure of people to severe or nuisance noise levels?		Х				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		Х				
d. Interference with radio or television reception and operation?		Х				
7. LAND USE	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be	Comment Index
Will the proposed action result in:					Mitigated	
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?			Х			p. 4
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		Х				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		Х				
d. Adverse effects on or relocation of residences?		Х				
8. RISK/HEALTH HAZARDS  Will the proposed action result in:	IMPACT Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		Х			J	

	1	.,	1			
b. Affect an existing emergency response or		Х				
emergency evacuation plan or create a need						
for a new plan?						
c. Creation of any human health hazard or		Χ				
potential hazard?						
d. Will any chemical toxicants be used?		Χ				
9. COMMUNITY IMPACT	IMPACT	None	Minor	Potentially	Can	Comment
	Unknown	110110		Significant	Impact Be	Index
Will the proposed action result in:	O I I I I I I I I I I I I I I I I I I I			Olgimioant	Mitigated	macx
a. Alteration of the location, distribution,		Х			Willigated	
		Α				
density, or growth rate of the human						
population of an area?						
b. Alteration of the social structure of a		X				
community?						
c. Alteration of the level or distribution of		Χ				
employment or community or personal						
income?						
d. Changes in industrial or commercial		Х				
activity?		, ,				
e. Increased traffic hazards or effects on		Х				
existing transportation facilities or patterns of		^				
movement of people and goods?				5		
10. PUBLIC SERVICES/TAXES/UTILITIES	IMPACT	None	Minor	Potentially	Can	Comment
	Unknown			Significant	Impact Be	Index
Will the proposed action result in:					Mitigated	
a. Will the proposed action have an effect		Χ				
upon or result in a need for new or altered						
governmental services in any of the following						
areas: fire or police protection, schools,						
parks/recreational facilities, roads or other						
public maintenance, water supply, sewer or						
septic systems, solid waste disposal, health,						
or other governmental services? If any,						
specify:						
b. Will the proposed action have an effect		Х				
upon the local or state tax base and		^				
revenues?						
		V				
c. Will the proposed action result in a need for		X				
new facilities or substantial alterations of any						
of the following utilities: electric power, natural						
gas, other fuel supply or distribution systems,						
or communications?						
d. Will the proposed action result in increased		Χ				
used of any energy source?						
e. Define projected revenue sources		Χ				
f. Define projected maintenance costs		Х				
11. AESTHETICS/RECREATION	IMPACT	None	Minor	Potentially	Can	Comment
THE ALUME TO ME TO THE TOTAL OF	Unknown	Hone	Willion	Significant	Impact Be	Index
Will the proposed action result in:	SIIKIIOWII			Oigillioant	Mitigated	IIIdex
		V			Milligated	
a. Alteration of any scenic vista or creation of		X				
an aesthetically offensive site or effect that is					ĺ	
open to public view?	<u> </u>					
b. Alteration of the aesthetic character of a		Х				
community or neighborhood?						

			1	1	T	. 1
c. Alteration of the quality or quantity of				X		p. 4
recreational/tourism opportunities and				Benefit		
settings? (Attach Tourism Report)						
d. Will any designated or proposed wild or		Х				
scenic rivers, trails or wilderness areas be						
impacted? (Also see 11a, 11c)						
12. CULTURAL/HISTORICAL RESOURCES	IMPACT	None	Minor	Potentially	Can	Comment
	Unknown			Significant	Impact Be	Index
Will the proposed action result in:					Mitigated	
<ul> <li>a. Destruction or alteration of any site,</li> </ul>		Χ				
structure or object of prehistoric historic or						
paleontological importance?						
b. Physical change that would affect unique		Χ				
cultural values?						
c. Effects on existing religious or sacred uses		Х				
of a site or area?						
d. Will the project affect historic or cultural		Х				
resources?		, ,				
13. SUMMARY EVALUATION OF	IMPACT	None	Minor	Potentially	Can	Comment
SIGNIFICANCE	Unknown	110110		Significant	Impact Be	Index
5.6.m. 167.11.6 <u>-</u>				o.g.m.oam	Mitigated	шасх
Will the proposed action, considered as a						
whole:						
a Theory Supposed that a color P. St. and P. W. C.		. V				
ia. Have impacts that are individually limited.		X				
A. Have impacts that are individually limited, but cumulatively considerable? (A project or		Х				
but cumulatively considerable? (A project or		Х				
but cumulatively considerable? (A project or program may result in impacts on two or more		Х				
but cumulatively considerable? (A project or program may result in impacts on two or more separate resources, which create a significant		Х				
but cumulatively considerable? (A project or program may result in impacts on two or more separate resources, which create a significant effect when considered together or in total.)						
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- Other groups or agencies contacted or which may have overlapping jurisdiction: <u>United States</u> Forest Service.
- List of Individuals or groups contributing to this EA: Grant Grisak, Fisheries Biologist, FWP, Great Falls, MT; Michael Enk, Fisheries Biologist, Lewis and Clark National Forest, Great Falls, MT.
- List of all agencies and individuals who have been notified of this proposed transfer: <a href="Public notification">Public notification</a> via the FWP Web Site (http://fwp.state.mt.us/publicnotices/). The USFS has been involved in drafting the EA.

**Recommendation concerning preparation of EIS:** No EIS Required. Impacts of action expected to be minor. Benefits to westslope cutthroat trout are expected to be significant.

EA prepared by: <u>David Moser, Fisheries Biologist, FWP, Great Falls, MT.</u> Date: <u>May 22, 2008.</u>

Comments will be accepted until: June 22, 2008

Comments should be sent to: <u>David Moser, FWP, c/o USFS, P.O. Box 869, Great Falls, MT 59403;</u> <u>dmoser@fs.fed.us</u>